

Application No. 10/506541
Reply to Office Action of August 26, 2005

REMARKS

Applicant respectfully request reconsideration in view of the amendment and following remarks. Support for amended claim 1 can be found in claims 6 and 8. Support for the concentration can be found in the specification at page 8, lines 1-3. Support for newly added claim 21 can be found in the specification at page 13, line 17. Support for newly added claim 22 can be found in the specification at page 8, lines 1-3.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,259,458 ("Robeson") note cols. 1-5, Tables and also claims 16, 17, 32, 35 of the reference; U.S. Patent No. 4,417,018 ("Ogawa") see cols. 1-6, Table 5, Example 1 and Claims 1, 2, 3, and 10. The applicant respectfully traverses these rejections.

112 Rejection

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 has been canceled. For the above reason this rejection should be withdrawn.

Rejection under 35 U.S.C. § 102

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Robeson. Robeson discloses molding compositions comprising a blend of a polyacrylate, a polyester and one thermoplastic polymer having better mechanical properties than a binary blend of polyacrylate and a thermoplastic polymer. Robeson shows that the addition of polyacrylate/polyethylene terephthalate blends to thermoplastic polyurethanes yields higher

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modulus products (see table 10). It is asserted that said method of reinforcement offers distinct advantages over inorganic filler or fiber reinforcement.

In context with the preparation of copolyetherester block copolymers (thermoplastic component) as a catalyst for ester interchange reactions, tetrabutyl titanate is mentioned in particular (col. 17, lines 4-18).

Robeson also discloses at col. 19, lines 66 through col. 20 line 16,

It should, of course, be obvious to those skilled in the art that other additives may be included in the present compositions. These additives include 1. plasticizers; 2. pigments; 3. flame retardant additives, particularly, decabromodiphenyl ether and triarylphosphates, such as triphenylphosphate; 4. reinforcing agents, such as glass fibers; 5. thermal stabilizers; 6. ultraviolet light stabilizers 7. processing aids, 8. impact modifiers and 9. the like.¹ (emphasis added)

Therefore, nine different optional additive groups listed in the Robeson including reinforcing agents such as glass fibers and impact modifiers. However, there is no teaching to use the specifically the applicant's specifically claimed additives in the specific amount claimed by the applicant. In this connection, neither the use of the claimed catalysts in forming covalent bonds between the thermoplastic polymer and the surface of the reinforcing material nor the application in such low amounts is suggested or taught by Robeson.

Moreover, no specific example is given which anticipates the claimed molding composition. In summary, Robeson, provides no hint or teaching which renders the instant invention obvious.

Rejection over Ogawa

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa. Ogawa discloses a flame retardant resin composition consisting of polyethylene terephthalate as

¹ The numbers were inserted by the applicant.

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thermoplastic polyester, decabromodiphenyl ether and antimony trioxide treated with alkoxysilane as flame retardants, glass fibers as a filler and talc as a nucleating agent (table 5, exp. 11). The applicant has informed the undersigned that compositions having a high thermal stability and static strength can be obtained when antimony trioxide treated with alkoxysilane is used as a flame retardant which is a necessary feature according to Ogawa.

Furthermore, it is mentioned that the thermoplastic polyester may be blended with a terminal-blocked polycaprolactone (col. 6, lines 14-61). In that special case, the use of a titanate-type catalyst such as tetrabutyl titanate is mentioned in order to promote the ring-opening polymerization of ϵ -caprolactame. Moreover, in the specification, among fillers used as reinforcing agents (col. 8, lines 37-69), glass fibers are disclosed. In general it is mentioned that glass fibers may further be treated with a coupling agent such as a silane compound, borane compound or the like, or may be coated with e.g. thermoplastic resins. There is neither a hint about the amount of such a coupling agent nor a specific example is given in Ogawa. For that reason, the claimed composition is not anticipated or made obvious by the cited reference.

In contrast thereto, according to the instant invention special catalysts are used in very low amounts which catalyze the formation of covalent bonds between the thermoplastic polymer and the surface of the reinforcing material. The resulting molding compositions exhibit improved mechanical properties in comparison to thermoplastic compositions without the claimed catalysts (see comparative examples).

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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A one month extension has been paid. Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 03-2775, under Order No. 05587-00369-US from which the undersigned is authorized to draw.

Respectfully submitted,

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